



A.D. 1857 N° 643.

S P E C I F I C A T I O N

OF

SAMUEL SUTCLIFFE AND JAMES STOCKS.

SMOKE-CONSUMING APPARATUS.

LONDON:

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Smoke-consuming Apparatus.

(This Invention received Provisional Protection, but notice to proceed with the application for Letters Patent was not given within the time prescribed by the Act.)

PROVISIONAL SPECIFICATION left by Samuel Sutcliffe and James Stocks at the Office of the Commissioners of Patents, with their Petition, on the 5th March 1857.

We, SAMUEL SUTCLIFFE, of Manningham, near Bradford, in the County of
5 York, Cotton Spinner, and JAMES STOCKS, of the same Place, Engine Tenter,
do hereby declare the nature of the said Invention for “IMPROVEMENTS IN
MEANS OR APPARATUS IN CONNEXION WITH STEAM BOILER AND OTHER FURNACES TO
FACILITATE THE CONSUMPTION OF SMOKE THEREIN,” to be as follows :—

The improvements relate to means for conducting air to the fire ; also to
10 means for heating such air in its passage thereto. The air to support com-
bustion wholly or in part passes through a pipe or pipes enclosed in a steam
chamber or chambers, supplied by steam from the boiler in such manner that
the air passing through such pipe or pipes may become highly heated before
it reaches the fire. The pipe or pipes thence pass to the dead plate of the
15 furnace, which, in carrying out our improvements, is formed hollow, and with
either a continuous channel or a series of openings at that edge which is near
the furnace bars, so that the heated air may thence flow direct on to the fire
from the fuel, or on to and amongst the fuel. A valve or other cover may
be employed to close or partially close the openings in the dead plate
20 at certain times to prevent the coal or other matter passing in to close them up.

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